Hales, Dana

From: Walker, Dana
Sent: Wednesday, June 10, 2015 11:59 AM
To: Gocek, Jeffrey
Cc: jnorthridg@pa.gov; Furlan, Ronald; Brian Trulear; Cruz, Francisco; Hakowski, Denise
Subject: Wellsboro Municipal Authority WWTP Revised Draft Permit (PA0021687)
Attachments: Comments on OSRAM and Wellsboro WERs.txt

Jeffrey,

According to our Memorandum of Agreement, the Environmental Protection Agency (EPA) Region III has reviewed the revised draft National Pollutant Discharge Elimination System (NPDES) permit for:

Wellsboro Municipal Authority WWTP
NPDES Number: PA0021687
EPA Received: May 11, 2015

This is a major permit and a significant Chesapeake Bay discharger. EPA issued a specific objection to this draft permit on July 9, 2014. Before the specific objection can be withdrawn, the items in the objection need to be resolved. I have completed my review of the revised draft permit and have the following comments:

1. Fact sheet addendum #1 states that "It is not the Department's practice to include narrative WQBELs for CSO outfalls in NPDES permits." EPA's specific objection letter explained that in accordance with Section IV.B.2.c. of the 1994 National CSO Policy, NPDES permits must contain the WQBEL/performance standard that is identified in the permittee's approved Long Term Control Plan (LTCP). Since the facility used the Presumption Approach, one of the following criteria would need to be in the permit:

    a. The permittee shall discharge no more than an average of [insert appropriate number: 4,5, or 6] overflow events per year; or
    b. The permittee shall eliminate or capture for treatment, or storage and subsequent treatment, at least 85% of the system-wide combined sewage volume collected in the CSS during precipitation events under design conditions; or
    c. The permittee shall eliminate or remove the following mass of pollutants from the combined sewage volume collected in CSS during precipitation events under design conditions:

    Additionally, we requested that the fact sheet provide a brief discussion regarding when the permittee is expected to achieve the performance standard (i.e., what is the LTCP's implementation schedule timeline?). This didn't seem to be addressed in the fact sheet addendum.

2. The TRC compliance schedule included in the fact sheet did not seem to be incorporated in the draft permit. Also, the fact sheet indicates that a three year compliance schedule is still being given, but Part A.I.B. state that final limits are effective as of July 2017, which seems to be a 2-year schedule (maybe this a remnant of the 2014 draft?). Can you clarify this?

3. Fact sheet addendum #1 states that EPA approved the copper WER via an email dated February 22, 2012. While this seems to be correct, our water quality standards staff (Denise Hakowski) reviewed the WER study more recently and sent an email to Tom Baron in September 2014 (see attached) regarding problems EPA noted with the study's calculated WERs. It appears that the WERs are not appropriate and would result in under-protective criteria. These issues will need to be addressed, since they affect the copper limits that will be developed for the permit.

Please address the above, and provide me with any changes to the draft permit and/or fact sheet, if necessary.

Thank you,
Dana

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From: Hakowski, Denise
Sent: Tuesday, September 16, 2014 2:41 PM
To: Tom Barron
Cc: MacKnight, Evelyn; Walker, Dana; Lai, Kuo-Liang
Subject: Comments on OSRAM and Wellsboro WERs

Hi Tom,

The EPA has comments on the two copper WERs calculated by Amendola Engineering, Inc. on behave of the Wellsboro Municipal Authority (WMA) and OSRAM Sylvania, to apply to the statewide copper criteria in the Charleston Creek and the Marsh Creek to determine site-specific criteria. The applicant did not follow one of the key technical evaluations (i.e., Analysis of data) recommended by the streamlined Water-Effect Ratio procedure (EPA 2001). Per the EPA guidance, the procedure is designed to apply to regulatory situations where most of the copper is from continuous point source effluents. The recommended data analysis, as noted in the EPA 2001 guidance, "The sample WER is the lesser of (i) the site-water EC50 divided by the lab-water EC50, or (ii) the site-water EC50 divided by the Species Mean Acute Value (SMAV)" (EPA 2001). Since the applicant did not perform the calculation using the SMAVs, even though in all cases the hardness-normalized EC50s in the lab water were less than the documented SMAVs for each of the four sample events, the final calculated WERs were much higher than those appropriate values using the above recommended procedure. As a result, EPA has determined that these WERs are not appropriate and would result in underprotective criteria.

The key steps that the applicant did not conduct are: (1) to derive the SMAVs for the OSRAM and WMA and then (2) to use the greater values of the SMAVs and the corresponding lab-water LC50 (or EC50) values as the denominator to calculate the appropriate Sample WERs. The values, for total copper, that EPA used to calculate the WERs (the denominator used in the WER calculation is highlighted) are as follows:

OSRAM WER, 7/6/2011 sample:

Hardness: 120 mg/L
Lab water LC50: 19.3 ug/l
SMAV (normalized for hardness): 23.89 ug/l

Wellsboro WER 7/6/2011 sample:

Hardness: 80 mg/L
Lab water LC50: 5.3 ug/l
SMAV (normalized for hardness): 16.30 ug/l

OSRAM WER, 9/19/2011 sample:

Hardness: 68 mg/L
Lab water LC50: 6.7 ug/l
SMAV (normalized for hardness): 14.00 ug/l

Wellsboro WER 9/19/2011 sample:

Hardness: 112 mg/L
Lab water LC50: 17.3 ug/l
SMAV (normalized for hardness): 22.38 ug/l

Date
AEI calculated (for Wellsboro, PA)
EPA review

OSRAM WER
(Charleston Cr.)
Borough WER
(Marsh Creek)
OSRAM WER
(Charleston Cr.)
Borough WER
(Marsh Creek)
07/06/11
2.8
15
2.2
4.9
09/19/11
5.3
5.2
2.5
4.0
Final Total Cu
WER
(Geometric Mean)
3.9
8.8
2.3
4.4

As you can see, EPA's calculated values are lower than the AEI calculated WERs for both cases. We encourage PADEP to check EPA's assumptions and calculations, but the AEI calculated WERs should not be used. Also, although EPA calculated the WER as total recoverable, we need clarification whether the WER is intended to be, and whether the measurements were for, Total or Dissolved Cu (i.e., "Dissolved" is noted in the QC Summary and the "Total Cu test" in the content of the report).

EPA has additional questions regarding methods and procedures, but they are likely addressed in the Quality Assurance Project Plan (QAPP) mentioned in the final study report. The QAPP was not included in the package EPA received for review, but the final report does note that it was submitted to PADEP on June 20, 2011 and July 26, 2011. In order to complete our review it would be helpful to have a copy of that QAPP.

Thanks for the opportunity to comment on these WERs. Let me know if you have any questions.

Denise